WO 2005/073087 PCT/EP2004/014724

10

Claims

- 1. A method for producing and filling containers, in which at least one tube (12) of softened plastic material is extruded into an opened mold (16), the tube (12) is closed at its projecting end when the mold (16) is closed to form the bottom of the container, the tube (12) is separated above the mold by means of a separating element (28) to form a filler opening (18), and the mold (16) is moved with the tube (12) having the filler opening (18) into a filling position in which the container, after it has been formed by generation in the mold (16) of a pressure gradient acting on the tube (12) and expanding it, is filled and then sealed, the filler opening (18) of the tube (12) being covered by a sterile barrier (30) at least from the time of its formation to that of filling of the respective container, characterized in that by means of the sterile barrier (30) at least one sterile medium (34) is moved in the direction of the filler opening (18) by means of a media delivery device (36).
- 2. The method as claimed in claim 1, wherein sterile air and/or other media such as inert gases, hydrogen peroxide, or the like are moved by the media delivery device (36) as sterile media (34) in the direction of the filler opening (18).
- 3. The method as claimed in claim 1 or 2, *wherein* the media delivery device (36) moves the respective sterile medium (34) in the direction of the filler opening (18) under a specified excess pressure.
- 4. The method as claimed in one of claims 1 to 3, *wherein* non-viable particles in particular are exhausted by means of a suction device (42), by preference one in the form of a vacuum device.

- 5. The method as claimed in one of claims 1 to 4, *wherein* the sterile barrier is configured as a plate-shaped cover element (30) which, after separation of the tube (12), covers the filler opening (16) and provides it with a sterile medium (34) until filling of the container is undertaken after its expansion below the sterile filling space.
- 6. The method as claimed in claim 5, wherein the cover element (30) moves together with the separating element (28) for separation of the plastic tube (12) or simultaneously with parts of the mold (16) so that by preference the cover element (30) clears the filler opening (18) only during filling of the container.
- 7. The method as claimed in one of claims 1 or 6, wherein the container is rinsed by or partly filled with the respective medium (34) by means of the media delivery device (36), by way of the filler opening (18).
- 8. The method as claimed in one of claims 1 to 7, wherein the sterile barrier and/or the sterile medium (34) are/is heatable, by preference to a temperature higher than 120°C, by preference to a temperature situated within the range of 150°C to 200°C.
- 9. A device for producing and filling containers having at least one mold (16) having movable mold walls, into which mold (16) at least one tube (12) of softened plastic material is extrudable the mold parts (14) of which may be closed for the purpose of welding the projecting end of the tube (12) by means of the welding edges situated on such mold parts (14) for formation of a container bottom, with a device for generation of a pressure gradient acting on the tube and expanding it, with a movable separating element (12) which may be moved for formation of a filler opening (18) by separating the tube (12) above the mold (16) between a retracted base position (FIG. 1a; FIG. 2a) and an operating position (FIG. 1c; FIG. 2c), and with a displacement device for moving the mold (16) into a filling position (FIG. 1b; FIG. 2b) for filling the container through the

filler opening (18), filling of the container taking place below an area called the sterile filling space and the filler opening (18) of the tube (12) being covered by a sterile barrier (30), at least from its formation to filling of the associated container below the sterile filling space, *characterized in that* by means of the sterile barrier (30) at least one sterile medium (34) may be moved in the direction of the filler opening (18) by means of a media delivery device (36)

- 10. The device as claimed in claim 9, wherein the sterile barrier is configured as a plate-shaped cover element (30) which is provided in the direction of the filler opening (18) with media outlet points (38) and with at least one inlet point (40) for delivery of the respective medium by means of a media delivery device (36).
- 11. The device as claimed in claim 10, wherein a suction device (42), by preference in the form of a vacuum device, is provided which at least in one position of the cover element (30) encloses this element in the form of a frame and is part of the media delivery device (36).